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Methodology of Extended Supervision Projections

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During the debate in the 1990s on Truth in Sentencing (TIS) in Wisconsin, relatively little consideration was given to the expected size of the extended supervision population; indeed, if this population turns out to be unexpectedly large, the state may be forced to rethink a number of its spending priorities. This research brief attempts to provide a reasonable estimate of the TIS II extended supervision population through 2012.

To accomplish this, a model was created based on 6,021 TIS II cases with disposition dates during or before November 2004. In addition to their inclusion as known data points, the distribution of these sentences is used to project all future sentences in the model through a random-draw process. This ensures that unrealistic sentence lengths are eliminated.

To guarantee that offenders with more than one sentence are not double-counted, all case numbers that have multiple sentences associated with them were adjusted so that only the sentence with the longest prison term and the longest extended supervision term is considered. Each unique case identification number is assumed to equate to a unique individual that is not currently incarcerated.

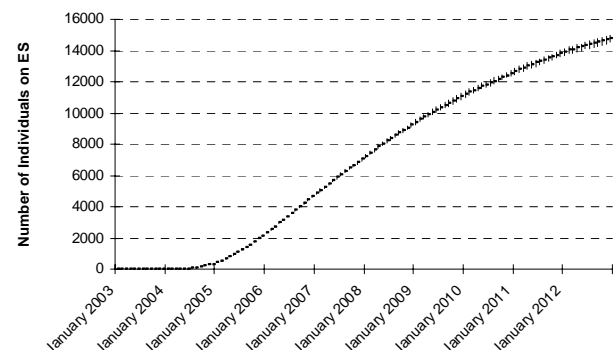
Before the extended supervision population can be computed, growth in the overall prison population must be accounted for. This growth is estimated by taking the average percentage change in the total monthly prison population over a five-year period beginning in 2000 for every month. Thus, this method computes the average January-to-February change, the average February-to-March change, and so on. While, admittedly, the difference in the total monthly prison population is not the best measure to estimate growth by, it does provide a reasonable approximation (it predicts an average 2.2 percent annual growth between 2005 and 2012).

The model itself operates on the level of the individual: a disposition date, a prison term, and an extended supervision term are randomly assigned to each member of the projected population. Prison lengths are then added to the disposition date to determine the prison release date, and extended supervision lengths are added to the prison release date to determine when each individual will no longer be under the supervision of the Department of Corrections. Because TIS legislation (except in rare instances) mandates that individuals serve the entirety of the sentence imposed by judges, it is not necessary to account for early release from prison.

Using the model, it is possible to create a baseline projection of the size of the extended supervision population. This prediction assumes that sentencing patterns remain identical to those under the first two years of TIS II. Under this assumption, the model predicts that the TIS II extended supervision population will surpass 5,000 in early 2007, 10,000 in early 2009, and will reach approximately 15,000 in 2012 (the final year considered by the model).

Since this model does introduce an element of randomness, it is important to rerun the simulation multiple times to check the consistency of the results (this is referred to as performing a Monte Carlo simulation). The results of repeating

Figure 1: Baseline ES Prediction



the simulation 100 times can be found in figure 1. Here, the median, the maximum, and the minimum values of the simulation are presented to indicate the feasible range of outcomes. The greatest difference between the predictions of the maximum and the minimum is 497, which occurs in September 2012; however, given that the median estimate of the total population at this time is almost 15,000, this difference is relatively minor.

One flaw in the model is that it does not account for offenders violating the terms of their extended supervision: violations of extended supervision normally would cause an offender to return to prison for the remainder of his sentence. However, at this point, TIS is new enough that no data is available on revocation rates. Once enough time passes so that this data is available, the model should be updated account for this change.

Additionally, the model assumes that sentencing patterns will remain unchanged. In reality, as judges become more familiar with extended supervision as a sentencing tool, their sentencing patterns may shift,

thereby causing the baseline projection to be less accurate. To account for this, it is important to consider different sentencing scenarios that can serve as bounds to the prediction.

The first set of bounds considers changes in policy that would cause judges to either impose extended supervision sentences that are uniformly 50 percent higher ("high ES") or to impose sentences that are 50 percent lower ("low ES") than current extended supervision sentences. Figure 2 shows the results, with the baseline prediction included as reference.

Initially, all three projections are very similar due to the fact that all sentences issued before November 2004 are known. However, as large numbers of felons exit prison and enter extended supervision, the population quickly grows. The "low" assumption predicts that fewer than 10,000 individuals will be on extended supervision, whereas the "high" assumption predicts that almost 20,000 individuals will be on extended supervision at any given time by the end of 2012.

The second set of bounds considers how the extended supervision population would change if extended supervision sentence length was based exclusively on the length of the prison term. In this scenario, the upper bound is designed to uniformly impose extended supervision sentences 50 percent longer than the corresponding prison sentence ("high prison"), while the lower bound is designed to uniformly impose extended supervision sentences that are 50 percent shorter than the corresponding prison sentence length ("low prison"). Figure 3 plots these bounds with the baseline reference.

The result of this experiment is somewhat surprising in that the upper bound is remarkably similar to the baseline prediction throughout the entire period. Indeed, the maximum difference between the two occurs in 2012 when the "high" prediction is only 1,000 below the baseline prediction. The "low" prediction quickly flattens out, reaching a maximum of 5,000 individuals in December, 2012.

These findings indicate that the extended supervision population will be substantial, regardless of the assumptions and factors guiding use of the sanction in the future. Use of this model can help state policymakers to plan more effectively for that population than has been done to date.

Figure 2: ES if Judges Change their Sentences

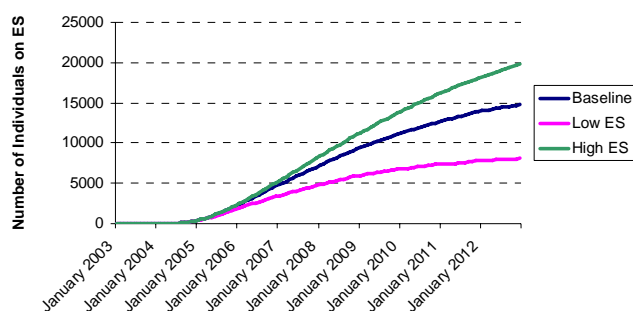
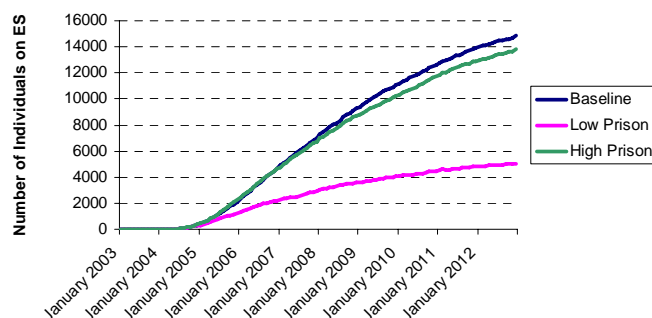


Figure 3: ES Based on Prison



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